western Arizona deserts, since they surely must have the ability to avoid poisonous food plants indigenous to their own habitat. However, the fact that they fed on oleander and were apparently killed by it suggests that their avoidance behavior is specific to the set of plants native to the habitat rather than some kind of generalized behavior which would allow them to recognize oleander as a poisonous plant. Judging from the miniscule proportion of oleander in the total biomass of plants fed on by the total cicada population, it seems extremely unlikely that these cicadas would ever evolve resistance to oleander, even if the relevant mutant were to appear.

Ackowlegements

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SCIENTIFIC NOTE

Population increase of introduced Elaterids, *Conoderus exsul* and *C. falli.* (Coleoptera: Elateridae).—Since its interception at Alameda, CA. in 1937 the sugarcane wireworm *Conoderus exsul* (Sharp) has currently been recorded from 14 counties in California. The southern potato wireworm, *Conoderus falli* Lane first intercepted in 1963 near Palm Springs has been reported from 4 counties. To learn more of the build-up of these elaterids records were kept of adults trapped at a 15 watt survey type fluorescent black light, located at Riverside and at Olive, CA. (Orange Co.), about 30 miles from Riverside. Adults were collected daily or on alternate days during the months May to November 1977. In the years 1974-76 inclusive the adults were collected between 9 and 10 p.m., from a suspended canvas at the top of which was placed a portable type black light of the same size and wattage as above.

Table 1 shows that the regulation survey type trap used in 1977 was either superior to the hand method of recovering adults, or was an indication of the tremendous build-up of both species in the 4 year period of these studies. At Olive in the years 1974-76 catches of *C. exsul* adults increased gradually, a trend to be expected, whereas at Riverside there was but slight difference in numbers of adults collected annually. The sizeable increase in numbers of *C. exsul* adults trapped at both locations in 1977 is an indication that this species has become well adapted climatically to this area.

The peak of *C. exsul* adult catches at both locations in 1977 occurred during July and August, a total of 30 and 37% were trapped at Riverside, respectively and 31 and 49% at Olive.

Table 1.—Yearly catches of *Conoderus exsul* and *falli* adults at black light. Riverside and Olive, CA. 1974-77.

	C. exsul		*C. falli*
	Riverside	Olive	Riverside
1974	286	518	436
1975	211	1238	440
1976	219	1564	401
1977	3106	3652	2289

Although *C. falli* adults have been recovered in several areas in Orange County none were trapped at the Olive location. The data at Riverside show that fewer but equal numbers of adults were trapped in the 3 earlier years followed by a substantial increase in 1977. Catches of *C. falli* adults in 1977 were also the largest in July and August, each 26% of total, and due apparently to the hot days and 70-75°F temperatures between 8 to 10 p.m. This insect has for years been a destructive pest of potatoes and of various vegetable crops in southeastern U.S. — M.W. STONE, *131 Sir Damas Dr., Riverside, CA. 92507* and J. WILCOX, *7551 Vista Del Sol, Anaheim, CA. 92807.*

SCIENTIFIC NOTE

Abundance of house dust mites, *Dermatophagoides*., in elementary schools of Orange County, California. — House dust mites of the genus *Dermatophagoides* (Pyroglyphidae), notably *D. farinae* Hughes and *D. pteronyssinus* (Trouessart), are the most important arthropods producing allergens present in house dust in homes. Only 2 investigations have dealt with the occurrence of these mites in structures other than human dwellings. Oshima (1964, Jap. J. Sant. Zoo. 15: 233-44) found *Dermatophagoides* spp. to be dominant on floors of elementary and high schools in Japan, while Nakada and Yoshikawa (1976, Ann. Rep. Tokyo Metro. Res. Lab. P.H. 27: 264-69) recovered 3 *Dermatophagoides* spp. from seats and floors of 12 Tokyo theaters, noting that *D. farinae* and *D. pteronyssinus* were among the most common Acari collected.

The abundance of *Dermatophagoides* mites was determined in Orange Co. elementary schools as part of an investigation to determine sources of allergenic materials in these schools. Nine schools, each with shag carpeting, were individually sampled early in the school year (Oct. 1976) and again later (Mar. 1977). Samples were collected by vacuuming a $5m^2$ surface area of the floor for 5 min with a house dust concentrator (Furumizo, R. T. 1975, Calif. Vect. Views 22: 19-27) attached to a Hoover portable vacuum cleaner Model S1015. After each minute the concentrator was replaced with a clean one to avoid clogging. During a school visit, 6 such areas were sampled, each taken from a different classroom. After sampling, the concentrator was placed in a 300ml specimen jar to which 65% ethyl alcohol was added. The volumetric washing technique (Furumizo, 1975, loc. cit.) was used to separate and isolate mites from dust in the laboratory.

Results showed that 6 of the 9 schools sampled yielded mites (mean of 4 mites/5 m^2 area; range = 1-9) of which 62% of the specimens were *D. pteronyssinus*, with the remaining being *D. farinae.* Two schools yielded both species, while the remaining 4 were singly infested with *D. pteronyssinus.* For the Oct. samples, 69% of *D. farinae* collected were live, while 41% were live *D. pteronyssinus.* The Mar. samples yielded no specimens of *D. farinae*, while just 4 schools were infested with *D. pteronyssinus.* The low mite numbers found in these schools as compared to 93% of nearby Orange Co. homes being infested with *Dermatophagoides* spp. which yielded a mean density of ca. 400 mites/5 m^2 area (Lang, J. D. and M. S. Mulla 1977, Environ. Ent. 6: 213-16), are probably due to school carpets being cleaned daily after school. This hygienic practice would probably remove mites as well as reduce human skin scales and other food detritus they feed on. The much lower mite numbers occurring in schools in Mar. as compared to Oct. is probably the result of seasonal conditions, since the authors have previously noted that *Dermatophagoides* populations decline in the spring in Orange Co. The low *Dermatophagoides* numbers collected from Orange Co. elementary schools would probably thus play an insignificant role in contributing to allergenic disorders present in these schools. — JAMES D. LANG, MIR S. MULLA, *Department of Entomology, University of California, Riverside, CA 92521* and CLAIBOURNE I. DUNGY, *Department of Pediatrics, California College of Medicine, University of California, Irvine, CA 92717.*

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